

**CLAIMS**

1        1.        A method for provisioning a telephone service feature, the method comprising:  
2                identifying a telephone service feature to be temporarily provisioned for the  
3        duration of a call;  
4                activating said identified telephone service feature; and  
5                deactivating said activated telephone service feature upon completion of said  
6        call.

1        2.        The method according to claim 1, wherein said identifying step further  
2        comprises:  
3                receiving a call request identifying a telephone service feature to be temporarily  
4        provisioned for the duration of a call; and  
5                determining whether said identified telephone service feature can be  
6        provisioned.

1        3.        The method according to claim 2, wherein said activating step further comprises  
2        the step of allocating system resources to support said identified telephone service  
3        feature.

1        4.        The method according to claim 3, wherein said activating step further comprises

2 allocating line interface circuits capable of providing said requested telephone service  
3 feature to a subscriber.

1 5. The method according to claim 4, wherein said allocating step further comprises:  
2 reserving a pool of resources for activating said identified telephone service  
3 feature; and  
4 selecting from said reserved pool of resources, an available resource capable of  
5 processing said identified telephone service feature.

1 6. The method according to claim 5, wherein said selecting step further comprises  
2 the step of multiplexing said available resource onto existing telephony service in order  
3 to support said call request for said identified telephone service feature.

1 7. The method according to claim 2, wherein the step of receiving said call request  
2 further comprises:

3 providing a list of telephone service features to a party, said list comprising said  
4 telephone service feature to be activated; and

5 selecting said telephone service feature to be provisioned from said provided list  
6 of telephone service features.

1 8. The method according to claim 1, wherein said telephone service feature is a

feature selected from the group consisting of a caller ID feature, a three-way calling feature, a call waiting feature, a call hold feature and a call forwarding feature.

9. A machine readable storage having stored thereon, a computer program having a plurality of code sections, said code sections executable by a machine for causing the machine to perform the steps of:

identifying a telephone service feature to be temporarily provisioned for the duration of a call;

activating said identified telephone service feature; and

deactivating said activated telephone service feature upon completion of said call.

10. The machine readable storage according to claim 9, wherein said identifying step further comprises:

receiving a call request identifying a telephone service feature to be temporarily provisioned for the duration of a call; and

determining whether said identified telephone service feature can be provisioned.

11. The machine readable storage according to claim 10, wherein said activating step further comprises the step of allocating system resources to support said identified

3 telephone service feature.

1 12. The machine readable storage according to claim 11, wherein said activating  
2 step further comprises allocating line interface circuits capable of providing said  
3 requested telephone service feature to a subscriber.

1 13. The machine readable storage according to claim 12, wherein said allocating  
2 step further comprises:

3 reserving a pool of resources for activating said identified telephone service  
4 feature; and

5 selecting from said reserved pool of resources, an available resource capable of  
6 processing said identified telephone service feature.

1 14. The machine readable storage according to claim 13, wherein said selecting step  
2 further comprises the step of multiplexing said available resource onto existing  
3 telephony service in order to support said call request for said identified telephone  
4 service feature.

1 15. The machine readable storage according to claim 10, wherein the step of  
2 receiving said call request further comprises:

3 providing a list of telephone service features to a party, said list comprising said  
4 telephone service feature to be activated; and

5           selecting said telephone service feature to be provisioned from said provided list  
6 of telephone service features.

1    16.    The machine readable storage according to claim 9, wherein said telephone  
2 service feature is a feature selected from the group consisting of a caller ID feature, a  
3 three-way calling feature, a call waiting feature, a call hold feature and a call forwarding  
4 feature.

1    17.    A system for temporarily provisioning a telephone service feature, the system  
2 comprising:

3           a controller, said controller for receiving a call request identifying a telephone  
4 service feature to be temporarily provisioned for a called subscriber terminal for the  
5 duration of a call; and

6           an activator, said activator for activating said identified telephone service feature  
7 to satisfy said received call request and deactivating said required telephone service  
8 feature upon completion of said call.

1    18.    The system according to claim 17, wherein said activator further comprises a  
2 reserved pool of communication processing circuits controlled by said controller.

1    19.    The system according to claim 18, wherein each of said communication  
2 processing circuits further comprises a line interface circuit for providing said telephone

3 service feature.

1 20. The system according to claim 19, further comprising a common multiplexed bus  
2 for connecting each of said line interface circuits to a transmission conduit.

1 21. The system according to claim 20, wherein said controller further comprises a  
2 multiplexer for multiplexing communication signals from said line interface circuits onto  
3 said common multiplexed bus.

4 22. A system for temporarily provisioning a telephone service feature, the system  
5 comprising:

6 a communications controller for receiving a call request identifying a required  
7 telephone service feature to be temporarily provisioned for a called subscriber terminal  
8 for the duration of a call;

9 a pool of reserved communication processing circuits for activating and  
10 deactivating said identified telephone service feature; and

1 a multiplexer for multiplexing an available communication processing circuit from  
2 said pool of reserved communication processing circuits onto a transmission conduit  
3 providing service to said called subscriber terminal.

1 23. The system according to claim 22, wherein said communications controller

2 further comprises circuits and program logic of determining an available communication  
3 processing circuit from said pool of reserved communication processing circuits, and  
4 allocating said available communication processing circuit for processing said  
5 telephone service feature.

1 24. The system according to claim 23, further comprising a multiplexed bus for  
2 communicating telephony signals between each of said communication processing  
3 circuits and said called subscriber terminal through a transmission conduit.

4 25. The system according to claim 23, wherein said communication processing  
5 circuit is a line interface circuit providing local access service to said called subscriber  
6 terminal.

7 26. The system according to claim 23, wherein said communication processor  
8 further comprises circuits and program logic of returning an allocated communication  
9 processing circuit to said pool of reserved communication processing circuits at the end  
10 of said call duration.